FIG. 1A

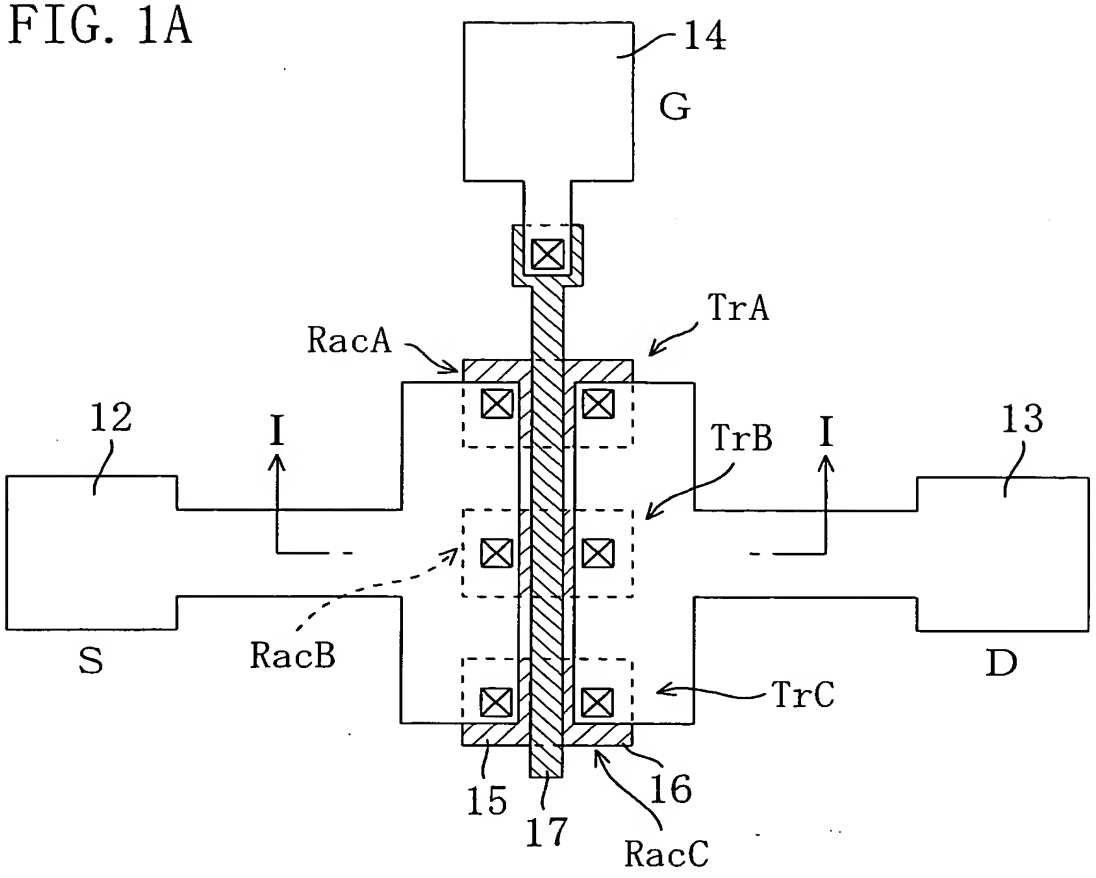
14
G
TrA
RacA
12
I
TrB
I
13
S
RacB
D
TrC
15
17
16
RacC

FIG. 1B

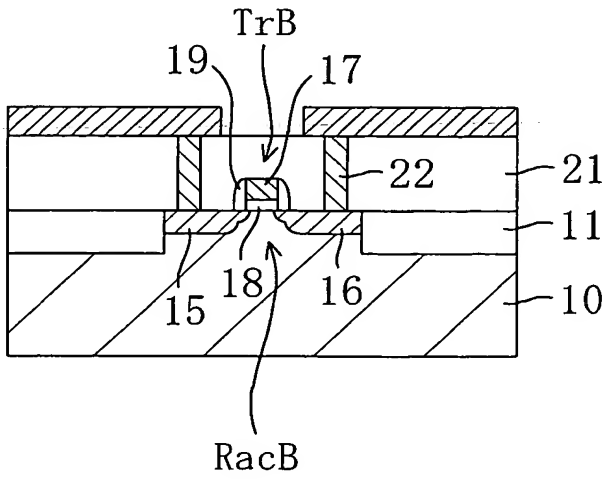
TrB
19
17
22
21
11
15
18
16
10
RacB

FIG. 2A

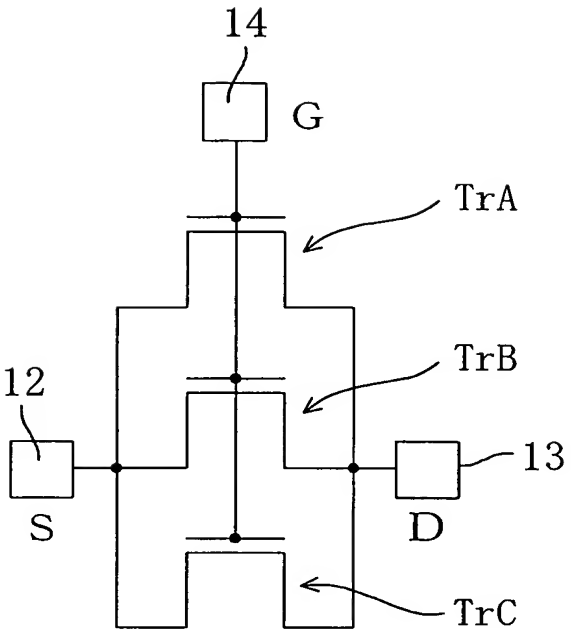
14
G
TrA
TrB
12
13
S
D
TrC

FIG. 2B

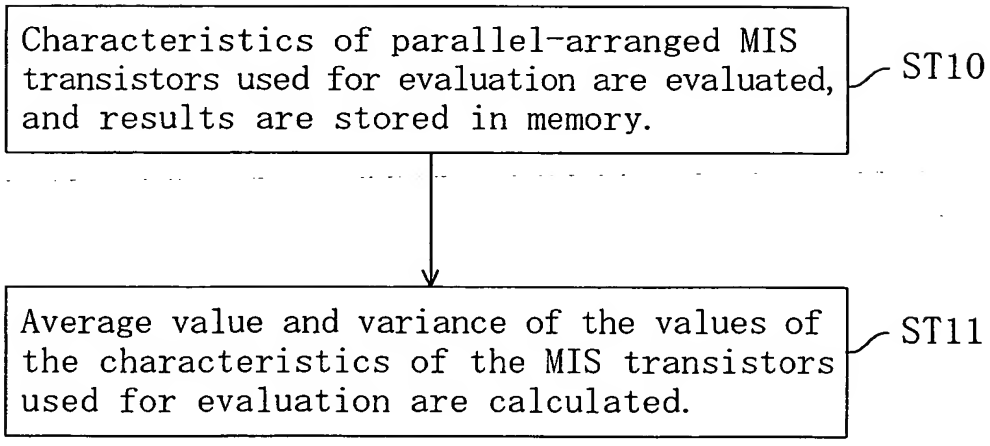
Characteristics of parallel-arranged MIS transistors used for evaluation are evaluated, and results are stored in memory.
ST10
Average value and variance of the values of the characteristics of the MIS transistors used for evaluation are calculated.
ST11

FIG. 3

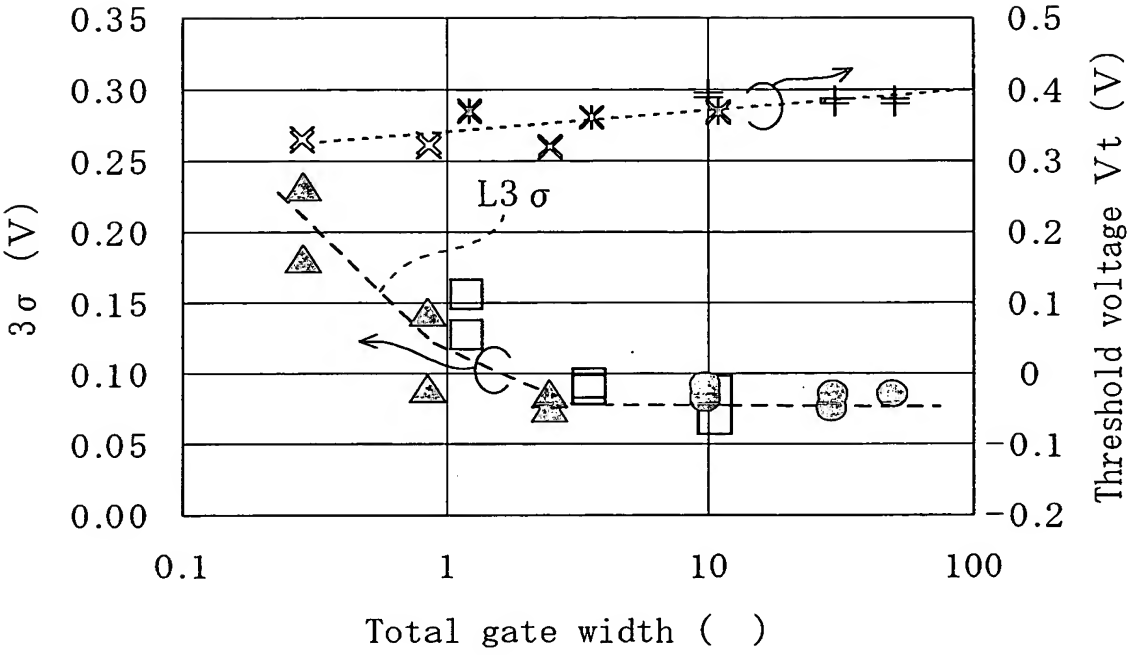
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
3σ (V)
0.5
0.4
0.3
0.2
0.1
0
−0.1
−0.2
Threshold voltage Vt (V)
L3σ
0.1
1
10
100
Total gate width ( )

FIG. 4A

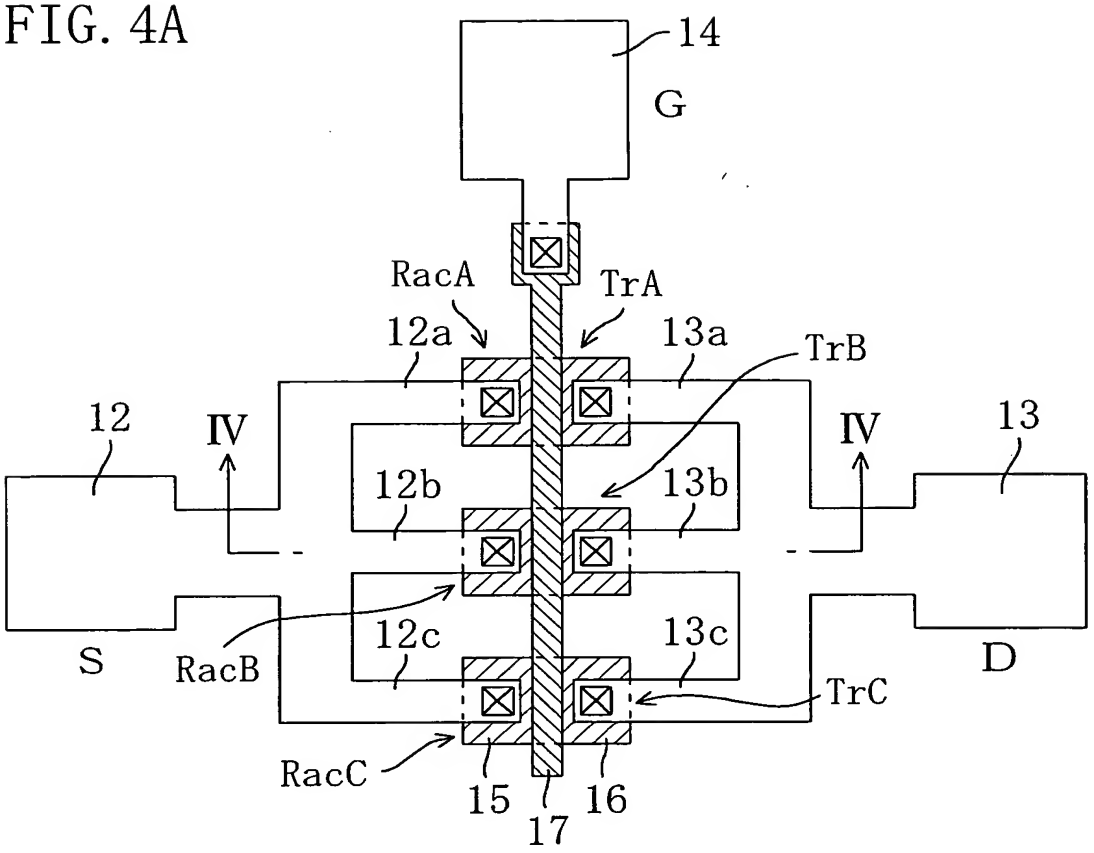
14
G
RacA
TrA
12a
13a
TrB
12
IV
IV
13
12b
13b
S
RacB
12c
13c
D
TrC
RacC
15
16
17

FIG. 4B

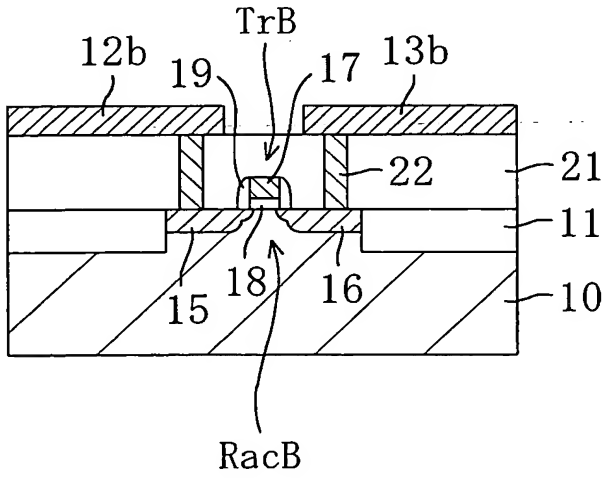
TrB
12b
19
17
13b
22
21
11
15
18
16
10
RacB

FIG. 5A

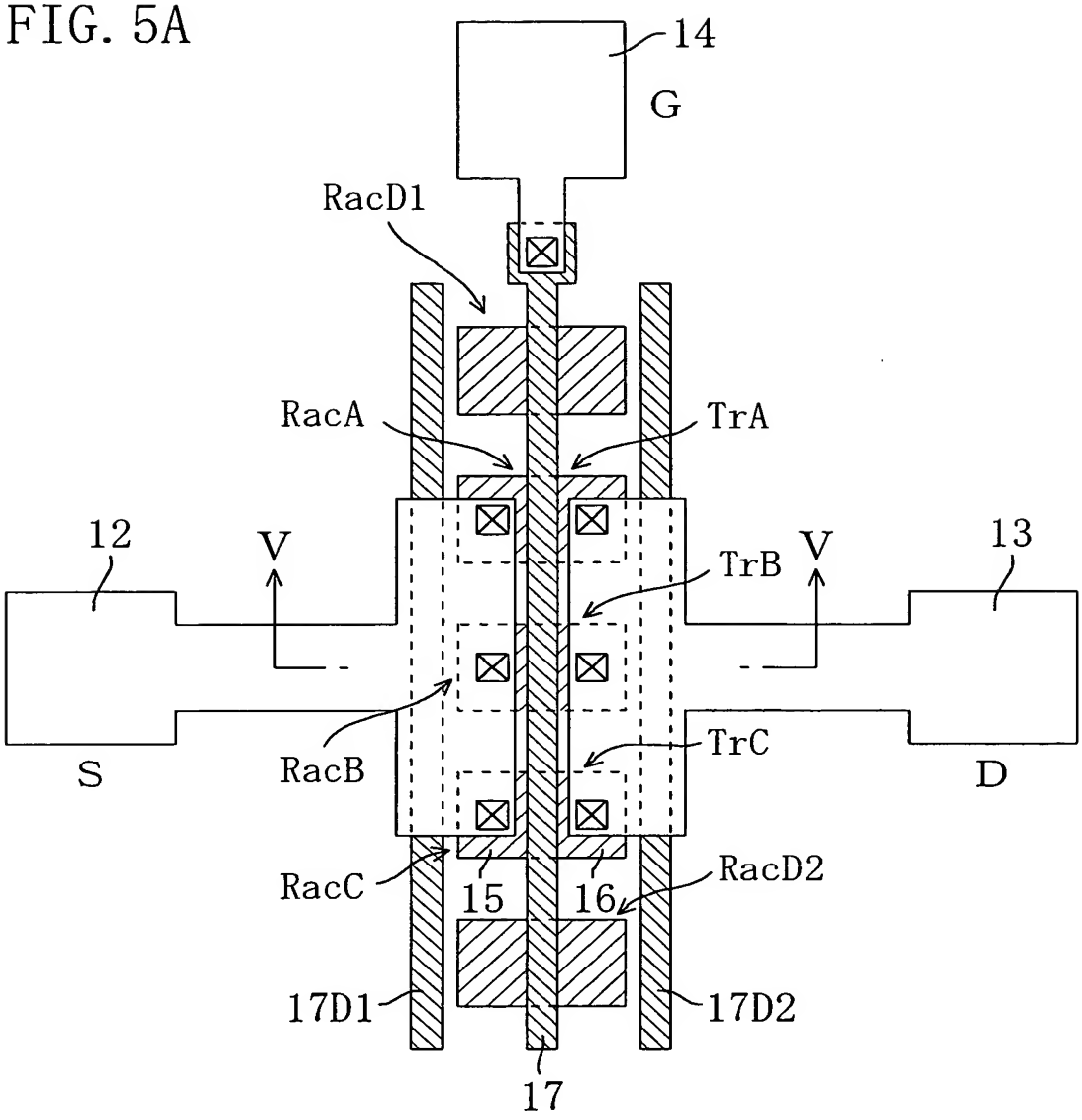
14
G
RacD1
RacA
TrA
12
V
TrB
V
13
S
RacB
TrC
D
RacC
15
16
RacD2
17D1
17D2
17

FIG. 5B

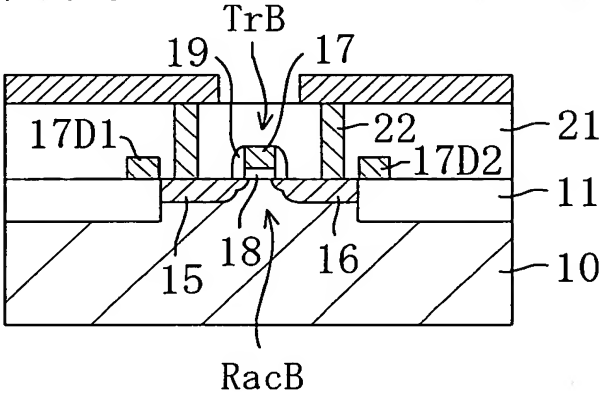
TrB
19
17
17D1
22
21
17D2
11
15
18
16
10
RacB

FIG. 6A

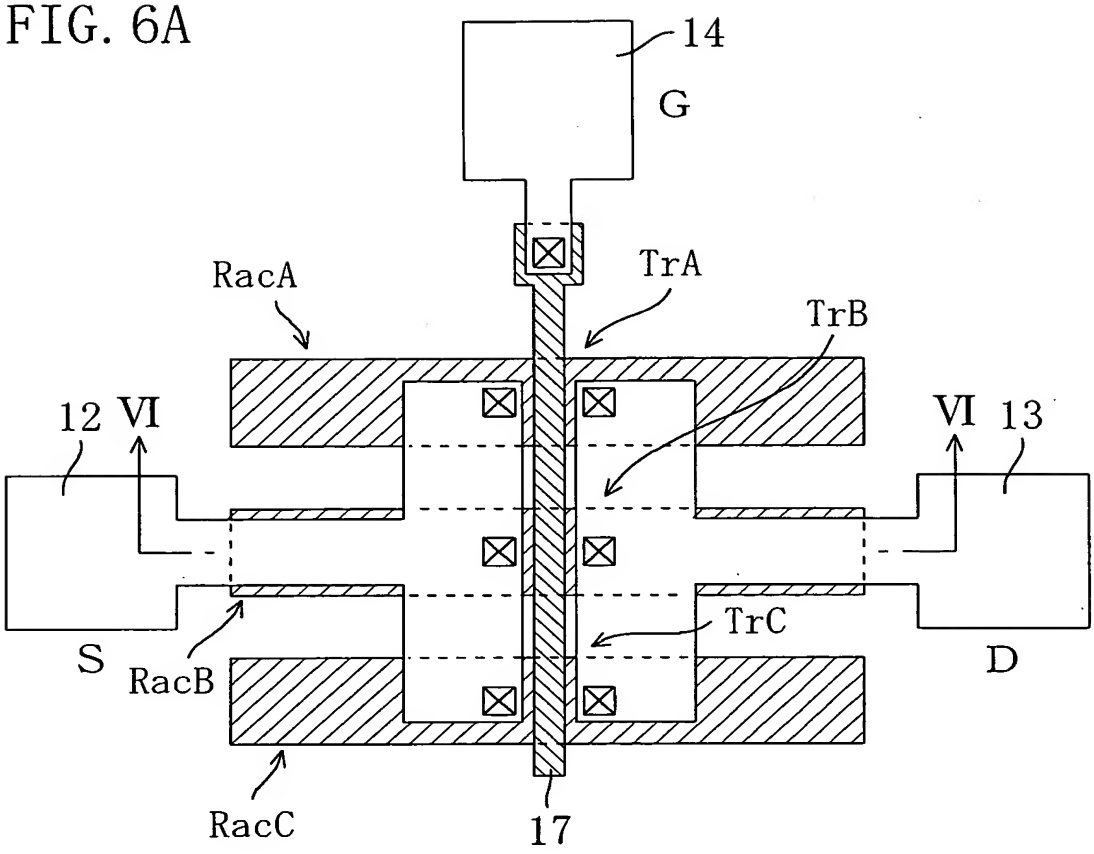
14
G
RacA
TrA
TrB
12
VI
VI
13
TrC
S
RacB
D
RacC
17

FIG. 6B

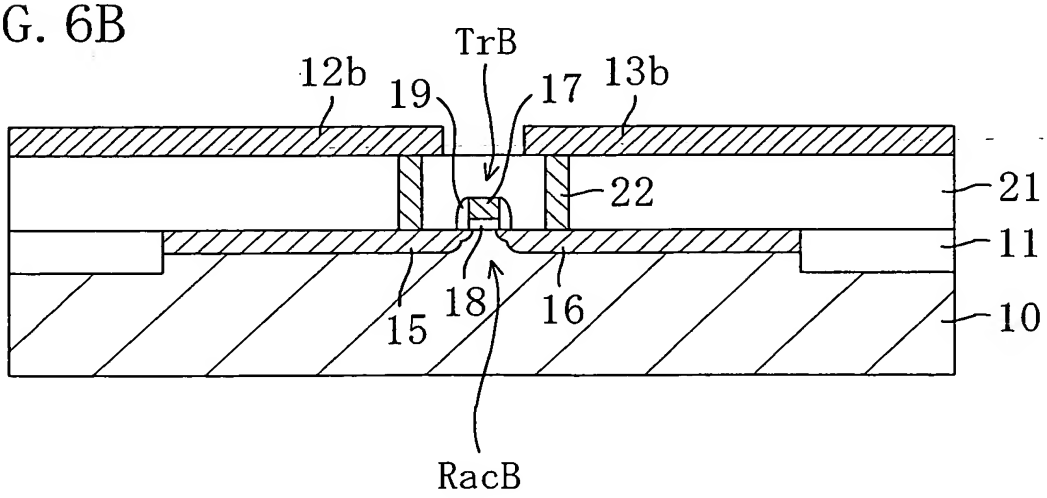
TrB
12b
19
17
13b
22
21
11
15
18
16
10
RacB

FIG. 7A

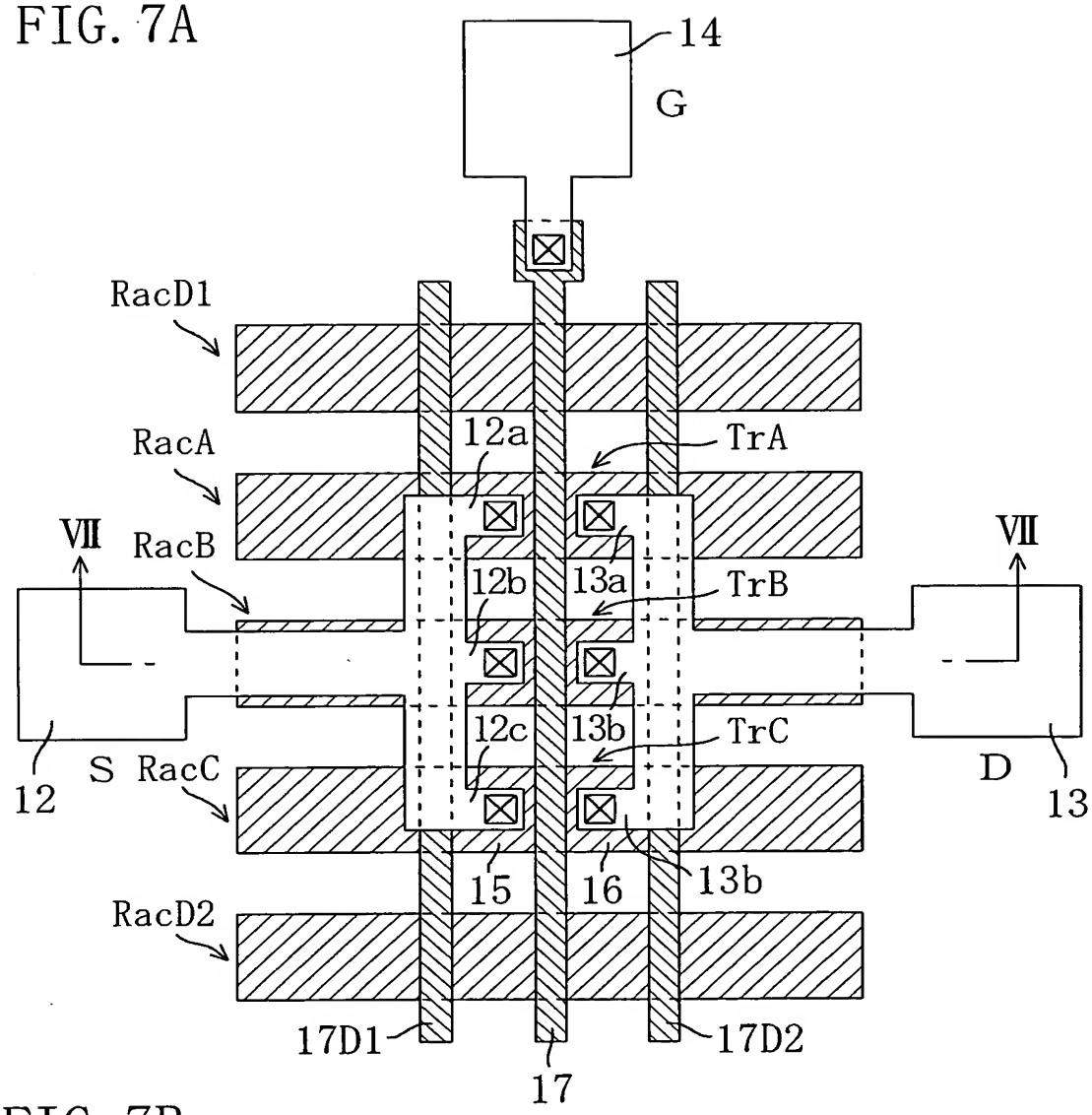
14
G
RacD1
RacA
12a
TrA
VII
RacB
VII
12b
13a
TrB
12c
13b
TrC
S
RacC
D
12
13
15
16
13b
RacD2
17D1
17D2
17

FIG. 7B

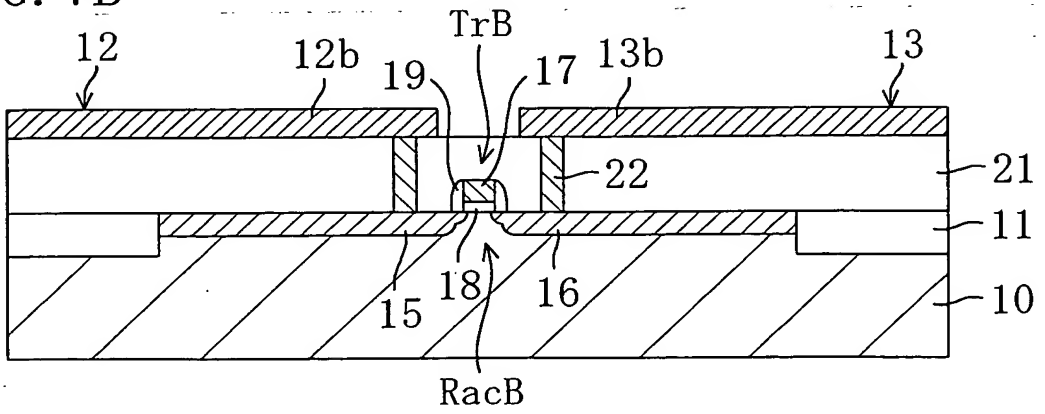
12
12b
19
TrB
17
13b
13
22
21
11
15
18
16
10
RacB

FIG. 8A

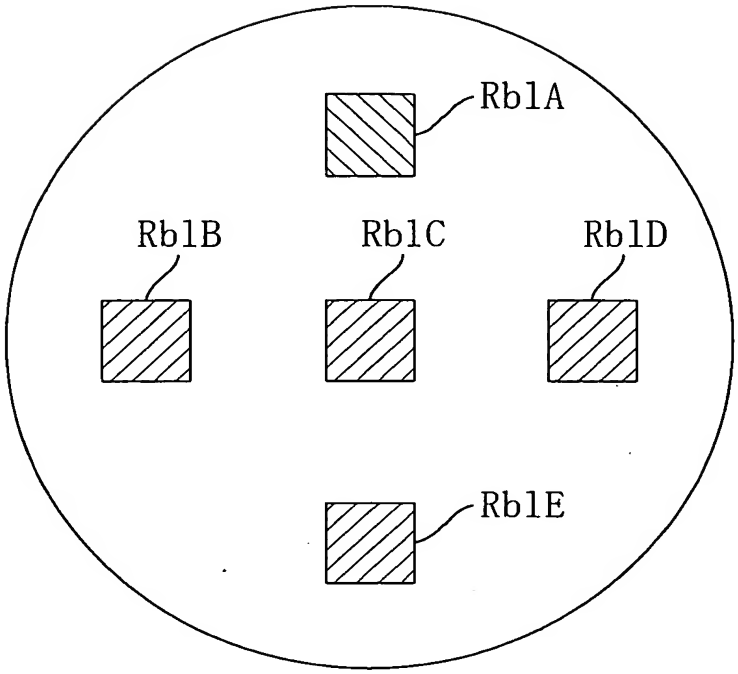
Rb1A
Rb1B
Rb1C
Rb1D
Rb1E

FIG. 8B

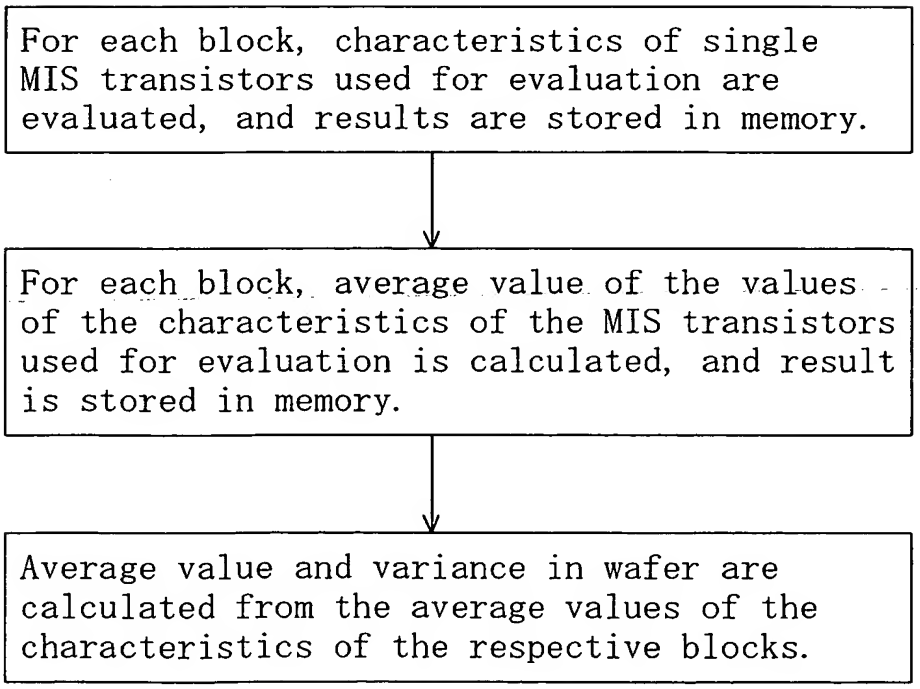
For each block, characteristics of single MIS transistors used for evaluation are evaluated, and results are stored in memory.
For each block, average value of the values of the characteristics of the MIS transistors used for evaluation is calculated, and result is stored in memory.
Average value and variance in wafer are calculated from the average values of the characteristics of the respective blocks.

FIG. 9

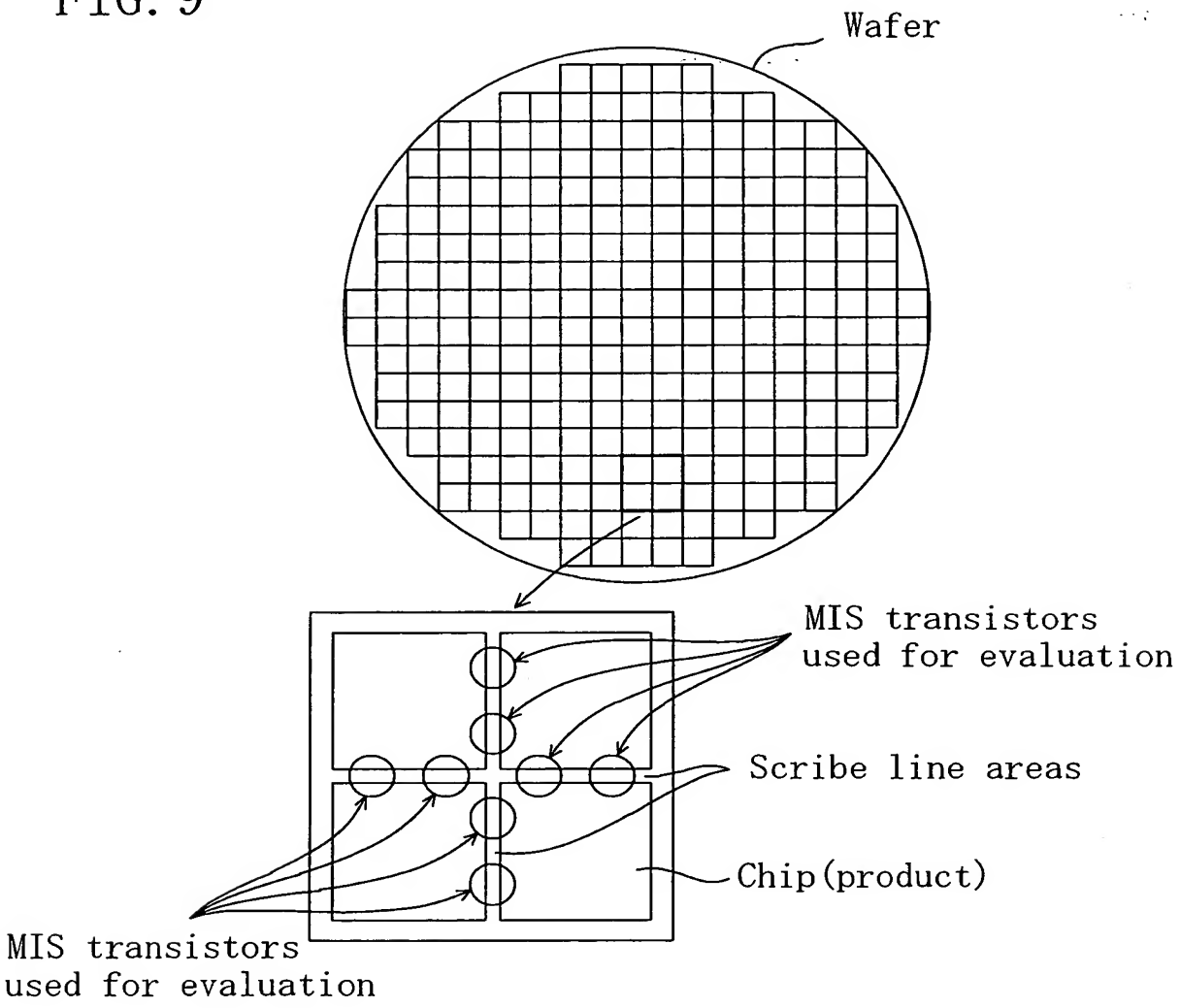
Wafer
MIS transistors
used for evaluation
Scribe line areas
Chip(product)
MIS transistors
used for evaluation

FIG. 10

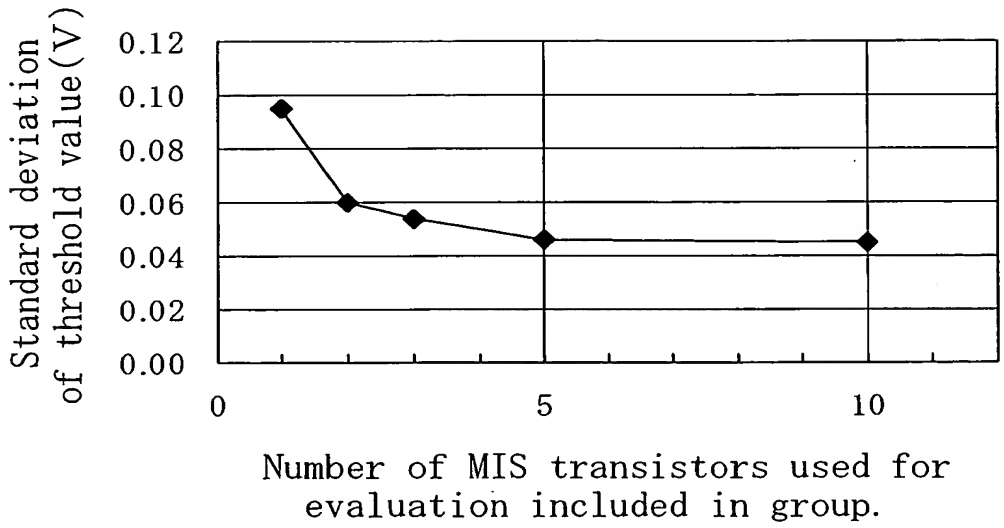
Standard deviation of threshold value(V)
0.12
0.10
0.08
0.06
0.04
0.02
0.00
0
5
10
Number of MIS transistors used for evaluation included in group.

FIG. 11A
PRIOR ART

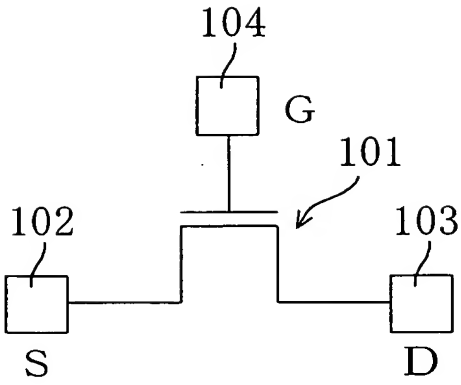

FIG. 11B
PRIOR ART

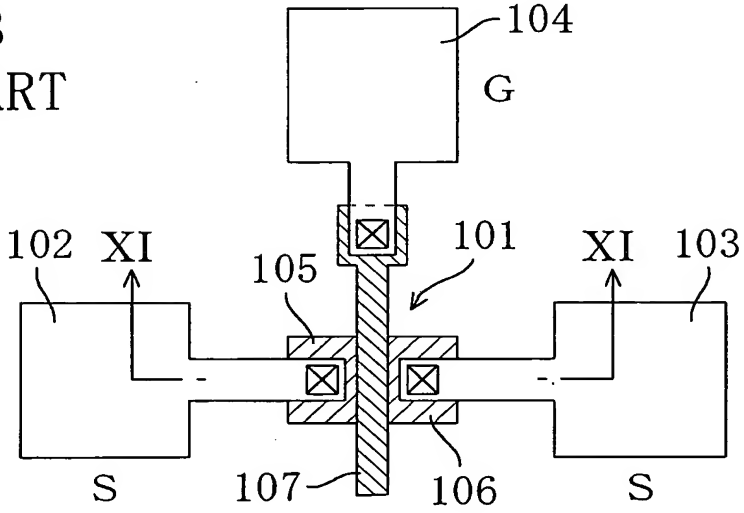

FIG. 11C
PRIOR ART